7 Quality Control Plan

The Quality Control Plan

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CHAPTER SEVEN:
QUALITY CONTROL PLAN

If a single part of the Certified Aggregate Producer Program can be considered to be the most important, then that is the Quality Control Plan (QCP). The QCP must encompass the total process from preliminary site approval up to the point where the material leaves the producer's control. The QCP must identify and address all products generated and the type, frequency, and limits of sampling and testing to be accomplished. The QCP focuses on a quality product and answers the questions of who, what, when, where, and how.

QUALITY CONTROL PLAN

DEVELOPMENT

The QCP is developed while the producer is in the Coordinated Testing Phase. When starting to develop the QCP, the producer should refer to this chapter, the model QCP's (Appendix C), INDOT's preliminary site approval letter, the CAP Program (**ITM 211**), and Section **917** of the INDOT Standard Specifications.

The QCP is site and plant specific. A QCP for one site would not necessarily be satisfactory for another site.

DETAILS

The following list is provided to assist in the preparation of a QCP. Do not consider it to be all-inclusive. A QCP should include:

1. The location and physical description of the site;

2. Management Representative and Certified Technician(s) and their CAPP duties and responsibilities;

3. A list and description of all portions of the mineral deposit as well as the manner in which each quality class is to be handled;

4. A statement regarding AP aggregates. The AP Aggregate Production Control Plan may be included in an Appendix;

5. A statement regarding leachate testing for air cooled blast furnace slag. The requirements are listed in ITM 212;

6. Identification of and a plan for handling materials having marginal quality characteristics;

7. A list of all products produced at the plant. A CAPP category shall be identified for each of the products. This list could also be an appropriate place to identify those products for which no controls or limits are appropriate;

8. A generic production flow diagram;

9. A sampling plan that includes locations, devices, techniques, frequencies, and test methods;

10. A testing plan that includes the types of tests and test methods, and the means to isolate material represented by nonconforming tests;

11. A list of the target mean values, standard deviations, and control limits on the critical sieves for each material controlled by critical sieve requirements;

12. A description of other process control techniques that will be used beyond the minimum required;

13. A plan for downstream controls that includes identification of stockpiles by signing, construction of stockpiles, and material retrieval;

14. A statement of laboratory capability including the location of the lab, a list of equipment that is verified, and the test methods and frequency of verification;

15. A documentation plan with details on control charting, test data, and the diary, etc;

16. The method by which the frequency of production and load-out testing of Certified Materials is verified;

17. The location of the reference documents, control charts, diary, test data, material shipment records, and other pertinent information;

18. Method of control for each Producer Yard;

19. Procedure for handling addenda;

20. The Annual Aggregate Source Report in an Appendix;

21. An Appendix. As a minimum the Appendix should contain an Addenda Summary Sheet; and

22. Authentication and approval (two signatures required).

A QCP checklist is provided to assure that all the applicable items required in **ITM 211** are addressed in the QCP.

ADDENDA

Addenda are defined as any addition or deletion to the QCP. Each page of the QCP that is revised is required to include the source number, date of revision, and means of identifying the revision. The addenda shall include a signed and dated authentication page.

Revisions for Certified Material additions, Certified Material deletions, target mean and control limit values, or Certified Aggregate Technicians are submitted in the format of the QCP Annex as they occur. Upon approval by the District Materials and Tests Engineer, the QCP Annex is placed in the Appendix of the QCP until such time that the revisions are incorporated into the QCP.

Revisions, other than items on the QCP Annex, are maintained on an Addenda Summary Sheet. The Addenda Summary Sheet is a page of the QCP Appendix that is used to record a brief description of the revision until such time that the revision is incorporated into the QCP.

Addenda may be submitted at the audit close-out meeting or within the first two months of each calendar year. The addenda shall include items on the QCP Annex, items on the Addenda Summary Sheet, and any other necessary revisions at the time of submittal. Upon incorporation into the QCP as addenda, the QCP Annex and items on the Addenda Summary Sheet shall be removed from the QCP Appendix.

OPERATIONAL TYPES

The CAPP provides for Plants and Redistribution Terminals. The QCP should identify the intended type of operation. In some instances a primary source may also sell material produced at another source and therefore would be operating as both a Plant and a Redistribution Terminal.